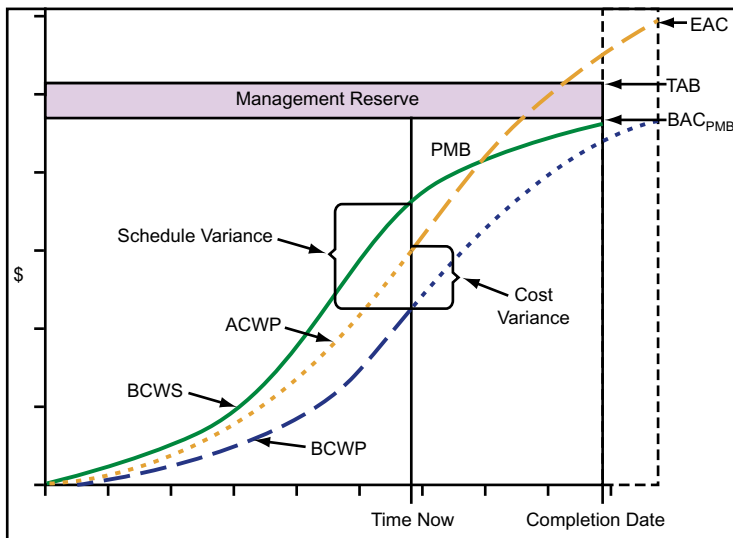


# Earned Value Performance Management



**Variances** (Favorable Is Positive, Unfavorable Is Negative)

- **Cost Variance**  $CV = BCWP - ACWP$   $CV\% = \frac{CV}{BCWP}$
- **Schedule Variance**  $SV = BCWP - BCWS$   $SV\% = \frac{SV}{BCWS}$
- **Variance at Completion**  $VAC = BAC - EAC$

## Performance Indices

(Favorable Is >1.0, Unfavorable Is <1.0)

- **Cost Efficiency**  $CPI = \frac{BCWP}{ACWP}$
- **Schedule Efficiency**  $SPI = \frac{BCWP}{BCWS}$

## Overall Status

- **Percent Complete**  $= \frac{BCWP_{CUM}}{BAC}$
- **Percent Spent**  $= \frac{ACWP_{CUM}}{BAC \text{ (or EAC)}}$

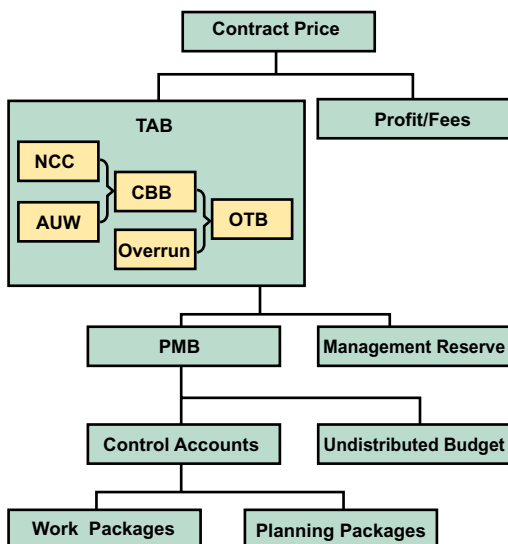
## To Complete Performance Index (TCPI)

- $TCPI_{EAC} = \frac{\text{Work Remaining}}{\text{Cost Remaining}} = \frac{BAC - BCWP_{CUM}}{EAC - ACWP_{CUM}}$

## Estimate at Completion

(EAC = ACWP + Estimate for Remaining Work)

- $EAC_{CPI} = \frac{BAC}{CPI_{CUM}}$
- $EAC_{Composite} = ACWP_{CUM} + \frac{BAC - BCWP_{CUM}}{CPI_{CUM} \cdot (SPI_{CUM})}$



## Terminology

- NCC** - Negotiated Contract Cost (Contract Price Less Profit/Fee(s))
- AUW** - Authorized Unpriced Work (Work Approved, But Not Yet Negotiated)
- CBB** - Contract Budget Base (Sum of NCC and AUW)
- OTB** - Over Target Baseline (Sum of CBB and Recognized Overrun)
- TAB** - Total Allocated Budget (Sum of All Budgets for Work on Contract Thru Any Given Level)
- BAC** - Budget at Completion (Total Budget - for Total Contract Thru Any Given Level)
- PMB** - Performance Measurement Baseline (Contract Time-Phased Budget Plan)
- MR** - Management Reserve (Budget Withheld by Contractor PM for Unknowns/Risk Mgt)
- UB** - Undistributed Budget (Broadly Defined Activities Not Yet Distributed to CAs)
- CA** - Control Account (Lowest CWBS Element Assigned to a Single Focal Point to Plan and Control the Scope/Schedule/Budget)
- WP** - Work Package (Near-Term, Detail Planned Activities Within a CA)
- PP** - Planning Package (Far-Term CA Activities Not Yet Defined in WPs)
- BCWS** - Budgeted Cost of Work Scheduled (Value of Work Planned to Be Done) - Plan
- BCWP** - Budget Cost of Work Performed (Value of Work Accomplished) - Earned Value
- ACWP** - Actual Cost of Work Performed (Cost of Work Accomplished) - Actual Cost
- EAC** - Estimate at Completion (Est. of Total Cost - for Total Contract Thru Any Given Level)

## EVM Policy (As Defined in DOD 5000.2-R)

**EVMS Criteria Approach** (Management Control System Must Meet Criteria):

- Required for Non-FFP Contract Exceeding \$70M RDT&E or \$800M in Procurement (CY96\$).
  - Below-Threshold Use Maybe Appropriate - Consider Benefits, Risk and Criticality.
- Contractor Must Establish, Maintain, and Use a System That Meets the Intent of the 32 Criteria.
- Cost Performance Report (CPR) Is Delivered As a CDRL Item.
  - 5 Formats (WBS, Organization, Baseline, Staffing, and Explanations).

**C/SSR Approach** (Management Control System Not Required to meet Criteria):

- Required for Non-FFP Contract Exceeding \$6M (CY96\$) and 12 Months in Length.
- Contractor System With Reasonably Objective Earned Value Methods Is Adequate.
- Cost/Schedule Status Report (C/SSR) Is Delivered As a CDRL Item.
  - 2 Formats (WBS and Explanations)

EUV Home Page - <http://www.acq.osd.mil/pm/>

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